

10/31

FANSTEEL METALS

LIME NEUTRALIZATION SYSTEM CAPABILITY

The total amount of liquid that can be put through our neutralization system at this time is 170,000 gallons per day. The limiting factor, at this time, is the Lead (Pb) content of our effluent. This limitation comes from our NPDES and state effluent permits. If the Pb content of our effluent increases because of the liquid from Pond 3, the liquid throughput will decrease.

The quantity, being delivered to the neutralization system from Pond 3, via the french drain system, is 90,000 gallons per day. This is the maximum quantity of this type of material that can be received by the neutralization system because of the low pH of the material. The system is at its maximum pH controlling capability.

We normally are required to add acid to the neutralization system to require lime to be added to the system for Fluoride control. This material from Pond 3 takes the place of the acid requirement. But, the quantity being added is just allowing the neutralization system to maintain an acceptable pH with all of the  $\text{OH}^-$  ion addition capability of the plant being utilized.

There is 3,000,000 gallons of liquid in Pond 3 and 1,000,000 gallons in the temporary holding pond adjacent to Pond 3. If we can maintain 90,000 gallons per day to the neutralization system it should take 44 days to remove the liquid from Pond 3 and the temporary holding pond.

If we obtain more lime feeding equipment and empty the Pond 1 North as proposed we can increase our through put by 40,000 gallons per day. The plant will then be required to decrease the process waste water by 30,000 gallons per day to allow maximum throughput from Pond 3. This will reduce the time required to approximately 30 working days. The Pond 1 North project would take approximately 8 days to complete which would add 4 days to the 30 day completion schedule. Therefore the liquid from Pond 3 and the temporary pond should be gone in 34 working days. This will allow Fansteel to maintain 60% of our current required production rate.

The above calculations do not take into account any ground water that may be entering the system through the french drain system. This could increase the required time frame by 50%. Therefore, we feel confident the removal of the liquid can be accomplished in 50 working days.

June 21, 1989



195859